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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/542,578	05/15/2006	Marie-Claire Janailhac	JANAILHAC1	6899
1444 7590 07/30/2007 BROWDY AND NEIMARK, P.L.L.C. 624 NINTH STREET, NW SUITE 300 WASHINGTON, DC 20001-5303			EXAMINER MI, QIUWEN	
			ART UNIT 1655	PAPER NUMBER
			MAIL DATE 07/30/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/542,578	JANAILHAC ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Qiuwen Mi	1655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.138(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-3 and 7-18 is/are pending in the application.
- 4a) Of the above claim(s) 8-15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 7, and 16-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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### **DETAILED ACTION**

Applicant's amendment in the reply filed on 7/9/07 is acknowledged. Any rejection that is not reiterated is hereby withdrawn.

#### **Election/Restrictions**

Applicant's election without traverse of claims 1-3, and 7-12 in the reply filed on 11/24/2006 is maintained. Applicant also elected species recited in claim 7.

Claims 4-6, and 8-15 are withdrawn from further consideration since they are drawn to non-elected claims.

#### **Claims Pending**

Claims 16-18 are newly submitted, which are drawn to the elected Group I. Claims 4-6 are cancelled. Claims 1-3, and 7-18 are pending. Claims 4-6 and 8-15 are withdrawn as they are directed toward a non-elected invention groups or species. Claims 1-3, 7, and 16-18 are examined on the merits.

#### **Claim Rejections –35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

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to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anchevskii et al (RU 2182820) in view of Li (Hydrobiologia 438: 99-105, 2000), and further in view of Patterson et al (US 5,439,933).

Anchevskii et al disclose a cosmetic cream (topical, emulsions, on skin) (contains cosmetically acceptable carrier, such as water) comprising 0.5-1.5% powder of blue-green algae (the same as *Aphanizomenon flos-aquae*).

Anchevskii et al do not disclose the specific variety of *Aphanizomenon flos-aquae* var. *flos-aquae* in a control released composition.

Li teaches the taxonomic of cyanobacteria genus *Aphanizomenon* and species *Aphanizomenon flos-aquae* var. *flos-aquae*. Li indicates that *Aphanizomenon flos-aquae* var. *flos-aquae* in fish ponds (as aqueous solution) are used as a health food supplement by several hundred thousand consumers in Northern America (see entire document including, e.g., page 102, Table 1; page 104, right column, second paragraph).

Patterson et al disclose a new compound isolated from blue-green algae (see Abstract) used in topical applications for antifungal activity (col 9, lines 5-10). Patterson et al also teach compound isolated from blue-green algae can be used in the sustained released formulations (a type of controlled release) (col 8, lines 55-60).

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use the species *Aphanizomenon flos-aquae* var. *flos-aquae* of Li and the sustained released formulations of Patterson et al in the invention of Anchevskii et al for the following reasons:

It is clear from Li that species *Aphanizomenon flos-aquae* var. *flos-aquae* is available in fish pond, and its quantity is sufficient enough to supply as large as several hundred thousand of consumers in Northern America. It is also clear from Li that species *Aphanizomenon flos-aquae* var. *flos-aquae* is not only non-toxic but also beneficial as it is used as a health food supplement. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the easily obtained nontoxic species *Aphanizomenon flos-aquae* var. *flos-aquae* of Li in the genus of *Aphanizomenon flos-aquae* for topical application as taught by Anchevskii et al.

It is also clear from Patterson et al that the compound isolated from blue-green algae has antifungal activity when used topically, and sustained release formulation as taught by Patterson et al is well known in the art for prolonged effect. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the sustained released formulation of Patterson et al to enhance the effect of cosmetic cream of Anchevskii et al since both the inventions use the extract/compound isolated from genus blue-green algae.

Since all of the invention yielded beneficial results in cosmetic and food industry, one of ordinary skill in the art would have been motivated to make the modifications.

Claims 1-3, 7, and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anchevskii et al (RU 2182820) in view of Li (Hydrobiologia 438: 99-105, 2000) and Zecchino et al (US 5,008,100), and further in view of Patterson et al (US 5,439,933) and Grollier (US 4,804,531).

Anchevskii et al disclose a cosmetic cream (topical, emulsions, on skin) (contains cosmetically acceptable carrier, such as water) comprising 0.5-1.5% powders of blue-green algae (the same as *Aphanizomenon flos-aquae*).

Anchevskii et al do not disclose the specific variety of *Aphanizomenon flos-aquae* var. *flos-aquae* in sorbitol and water, in a control-released, after-sun care composition.

Li teaches the taxonomic of cyanobacteria genus *Aphanizomenon* and species *Aphanizomenon flos-aquae* var. *flos-aquae*. Li indicates that *Aphanizomenon flos-aquae* var. *flos-aquae* in fish pound (as aqueous solution) are used as a health food supplement by several hundred thousand consumers in Northern America (see entire document including, e.g., page 102, Table 1; page 104, right column, second paragraph).

Zecchino et al disclose a stable oil-in-water skin compatible sunscreen cream (see Abstract) comprising deionized water, carbomer/Carbopol, disodium EDTA, silicon fluid, methylparaben, triethanolamine, ethylparaben (antimicrobial preservative) and fragrance (perfume) (cols 7&8, Example 2). Zecchino et al also teach that the composition has a greater sun protection factor

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than other compositions which have the same levels of conventional sunscreen agents (col 3, lines 33-37).

Patterson et al disclose a new compound isolated from blue-green algae (see Abstract) used in topical applications for antifungal activity (col 9, lines 5-10). Patterson et al also teach compound isolated from blue-green algae can be used in the sustained released formulations (the same as controlled release) (col 8, lines 55-60).

Grollier discloses a sunscreen cream comprising sorbitol (col 8, Example 7). Grollier also teaches that the composition increases the protection index of the said screening composition, and protects the human epidermis against ultraviolet radiation (col 1, lines 28-32).

Therefore, it would have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use the species *Aphanizomenon flos-aquae* var. *flos-aquae* of Li, the sunscreen creams from Zecchino et al and Grollier, and the sustained released formulations of Patterson et al in the invention of Anchevskii et al for the following reasons:

It is clear from Li that species *Aphanizomenon flos-aquae* var. *flos-aquae* is available in fish pound, and its quantity is sufficient enough to supply as large as several hundred thousand of consumers in Northern America. It is also clear from Li that species *Aphanizomenon flos-aquae* var. *flos-aquae* is not only non-toxic but also beneficial as it is used as a health food supplement. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the easily obtained nontoxic species *Aphanizomenon flos-aquae* var.

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*flos-aquae* of Li in the genus of *Aphanizomenon flos-aquae* for topical application as taught by Anchevskii et al.

It is also clear from Zecchino et al that the sunscreen cream is stable, skin compatible, and has a greater sun protection factor than other compositions, therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the sunscreen cream composition as taught by Zecchino et al in the invention of Anchevskii et al to achieve the stability and greater sun protection.

It is also clear from Grollier that the sunscreen cream increases the protection index of the said screening composition, and protects the human epidermis against ultraviolet radiation therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the sunscreen cream composition as taught by Grollier in the invention of Anchevskii et al to achieve the stability and greater sun protection.

It is further clear from Patterson et al that the compound isolated from blue-green algae has antifungal activity when used topically, and sustained release formulation as taught by Patterson et al is well known in the art for prolonged effect. Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to use the sustained released formulation of Patterson et al to enhance the effect of cosmetic cream of Anchevskii et al since both the inventions use the extract/compound isolated from genus blue-green algae.



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Since all of the invention yielded beneficial results in cosmetic and food industry, one of ordinary skill in the art would have been motivated to make the modifications. The result-effective adjustment in conventional working parameters (e.g., determining an appropriate salt of EDTA or appropriate type of extract of *Aphanizomenon flos-aquae* var. *flos-aquae*, such as, sorbitol and water) is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan.

From the teachings of the references, it is apparent that one of the ordinary skills in the art would have had a reasonable expectation of success in producing the claimed invention.

Thus, the invention as a whole is *prima facie* obvious over the references, especially in the absence of evidence to the contrary.

### **Response to Applicant's Arguments**

Applicant's arguments regarding, Li's reference does not teach topical application of the species; and Bryan's reference does not correspond to the purpose of the invention, have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Zecchino et al (US 5,008,100), Patterson et al (US 5,439,933) and Grollier (US 4,804,531).

### **Conclusion**

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No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qiuwen Mi whose telephone number is 571-272-5984. The examiner can normally be reached on 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Qiuwen Mi

/Patricia Leith/

Patricia Leith

Primary Examiner

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